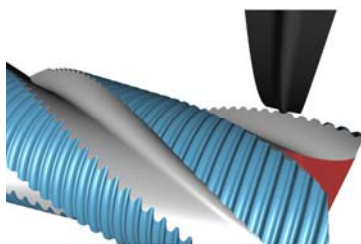


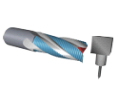













## HSS Roughing Endmill Ø20 Z4

A01-800

Production of HSS Roughing Endmills with dressable CBN-formwheels can be done very effective. The dressing of the formwheel is executed after 3 to 8 endmills. The lead of the roughing profile is 1 mm.



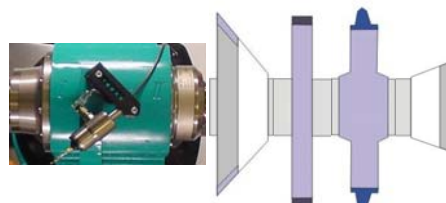
### 1. Cycletime for Production

Workpiece: Ø 20 mm, Z 4, Length of cutting edge 38 mm, Helix angle 32° Material HSS								
Operations								
Feed [mm/Min]	2000	80	100	60	80	400	100	9000
Power [kW]		12	3	3	2	2	2	1
Cutting feed [m/s]		36	32	32	32	35	50	
Used wheels								
Grinding time [s]	6	178	56	68	55	274	45	26
Total cycle time	11 Min 48							

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

### 2. Used Grinding Wheels

1	1A1 Ø125 B126
2	12V9 Ø125 B126
3	11V9 Ø75 B126
4	DXF Ø125 B126



2 1 4 3

### 3. Machine and Software Requirements

Machines: 5 axes CNC grinders : GEMINI DMR

Control: Fanuc 31i

Accessories:

Responsible engineer: OP. 14.4.11

Coolant: Synthetic Oil, pressure 10 bar

Software: Quinto 5

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